WIS 29 Environmental Assessment document

WIS 29 freeway designation and conversion project, Chippewa Falls to Thorp Project ID: 1051-01-03

1) Description of Proposed Action (Attach project map and other appropriate graphics).

The Proposed Action would officially convert WIS 29 from a four-lane divided highway facility (atgrade intersections) to a freeway (no at-grade accesses) through the process established in Chapter 84, Section 295 of the Wisconsin State Statutes (Wis. Stat. 84.295). Wis. Stat. 84.295 is a long-term official mapping and planning tool available to WisDOT to help protect and preserve R/W for future transportation needs. This proactive tool allows WisDOT to address safety, operation, mobility, and capacity issues in advance of impending long-term needs.

The Proposed Action would convert WIS 29 to a freeway between the Chippewa County Trunk Highway (CTH) X and WIS 29 interchange in Chippewa County to the Bruce Mound Avenue intersection in Clark County, a distance of approximately 21.84 miles (see Project Location Map). The Proposed Action is located in both Chippewa and Clark counties. The freeway conversion process would include the conversion of at-grade public and private (driveways) intersections on WIS 29. The existing at-grade private intersections would be closed, and the public intersections would be reconstructed to cu-de-sacs, grade-separations, and/or local road connections thereby converting WIS 29 from a four-lane facility to a freeway. The existing interchanges at WIS 29/WIS 27, WIS 29/CTH H/X and WIS 29/WIS 73 would remain unaltered.

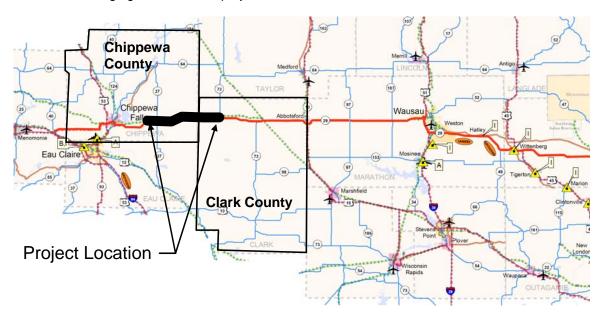
From IH 94 east to CTH X, WIS 29 is already designated or constructed as a freeway. The Proposed Action is consistent with the ultimate envisioned plane (Corridors 2020 Backbone Route) for the highway facility; no capacity improvements to the four-lane facility are planned as part of the Proposed Action.

It is also important to note that no conversion dollars are programmed or available at this time. There is not an immediate need to construct the Proposed Action; improvements and funding would be sought at a later time when needed. The Proposed Action is a long-term, proactive planning initiative to preserve future right-of-way to physically convert WIS 29 to a freeway and would be used as long-term vision and management strategy so that when WIS 29 improvements become necessary, a system-wide, comprehensive approach can be applied to the corridor.

When the proposed action is implemented, the project will include: (a) freeway signing and fencing; (b) installation of eight cul-de-sacs at 270th Street, 320th Street (S), 330th Street (N), 345th Street, 370th Street, Dickerson Avenue (S), and Tieman Avenue; (c) the closure of one agricultural special crossing east of 300th Street and (d) four grade separation structures at 300th Street, County Highway G, Copenhaver Avenue, and Koser Avenue. It is anticipated that the physical conversion of this section of WIS 29 to a freeway will occur gradually over the next 10 to 15 or more years, with improvements being made one intersection at a time.

This environmental document also includes the possible conversion of Copenhaver Avenue and County Highway G to interchanges by local municipalities. The two interchanges are local interchanges and are not needed for the operation of WIS 29. WisDOT will allow an interchange to be constructed at either location; however both would be locally funded projects. These interchanges were studied as part of this project to determine if either interchange location has environmental, historical, or archaeological concerns that would affect its construction. WisDOT performed preliminary design for these interchanges to provide local governments with reasonable accurate information so that they can preserve the footprint with official mapping. Local governments will officially map needed right-of-way for these interchanges under State Statute 59.69(1).

The following figure shows the project location.

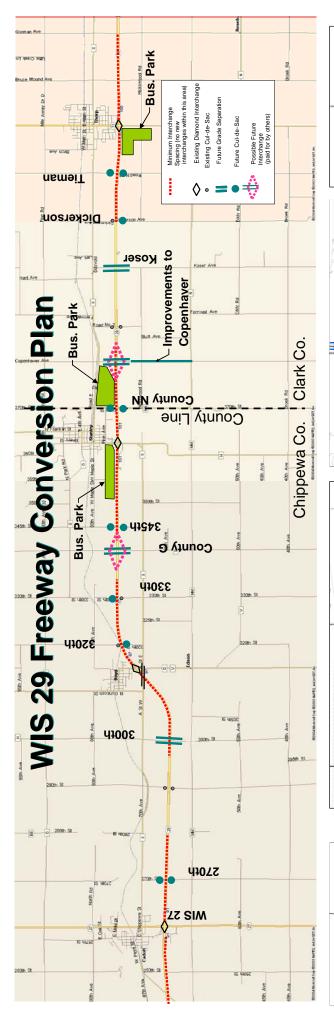


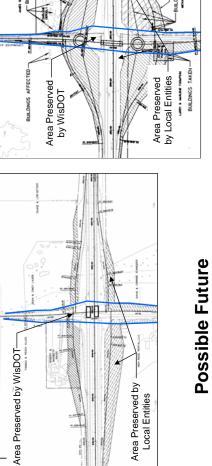
2. Purpose and need of proposed action. Include description of existing facilities, abutting facilities, and how the action links into the overall transportation system. When appropriate, show that commitment for future work is not being made without evaluation, and that viable alternatives in a larger framework are not being unduly foreclosed.

Classification and Function

WIS 29 is classified as a principal arterial highway, meaning it serves interstate and interregional trips. WIS 29 is also designated as a "backbone" route in the WisDOT Corridors 2020 plan. The Corridors 2020 plan seeks to interconnect major population and economic centers in all regions of the state and link them to the national transportation network. As a Corridors 2020 backbone route, WIS 29 is envisioned to be improved to a four-lane divided facility providing uninterrupted traffic flow from I-94 near the city of Menominee to the city of Green Bay. Construction of the final phase of the WIS 29 capacity improvement was completed in early fall of 2005 and the highway is completely open as a four-lane divided highway from IH 94 to WIS 43 in Green Bay.

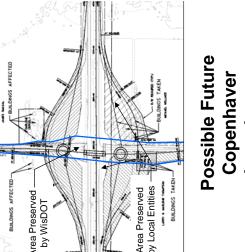
WIS 29 functions as the primary route across northcentral Wisconsin, linking the city of Green Bay with I-94 to the east and Minneapolis/St. Paul to the west. Current traffic volumes make WIS 29 the state's most heavily traveled





Area Preserved by WisDOT —

Possible Future Interchange Copenhaver



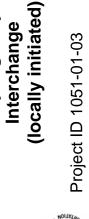
Area Preserved by Local Entities

Area Preserved by WisDOT -

(locally initiated)

Future Koser Ave

Overpass



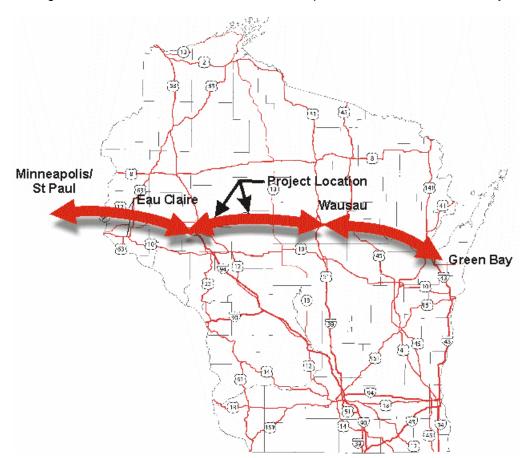
Project ID 1051-01-03

County Highway G

Future 300th Street

Overpass

east-west highway north of I-94. WIS 29 will be affected by higher traffic volumes and assume greater importance for the region once the US 53 bypass of the city of Eau Claire is completed in the next few years. WIS 29 also carries a high volume of truck traffic that illustrates its importance to Wisconsin's industry, business, and agriculture.



As the primary east-west route, there are statewide economic benefits realized with a more efficient highway network. Transportation costs and access to high-quality four-lane highways have long been recognized as factors affecting business location decisions. Businesses depending on highway transportation desire locations on or near highways that provide safe and efficient access to suppliers and markets. Reductions in travel time and transportation costs can help companies improve their competitive position, market presence, and profitability. Tourism may increase as tourists gain increased access to vacation and recreation areas. The ultimate impact of these economic benefits would be to generate more jobs and income for Wisconsin residents.

The project purpose and need can be divided into the following components for discussion purposes:

- Corridor Preservation
- Safety, Operation, and Mobility
- Land Use/Transportation Planning and Coordination

Corridor Preservation

WIS 29 is classified in the WisDOT's Corridors 2020 plan as a "backbone" route giving it high importance and priority within the state's transportation system. Improving WIS 29 to a four-lane facility was a multimillion dollar investment over 20 years in the making. Ideally, the freeway conversion for this segment would have been completed concurrently with the WIS 29 expansion from to two to four lanes in the mid-1990s and early 2000s. However, limited highway funds precluded this action at the time. Because the future availability of freeway conversion funding was unknown, the decision was made to move forward with the two- to four-lane capacity expansion to enhance safety and mobility as soon as possible.

As a principal arterial, WIS 29's function is to provide mobility, both from state and regional perspectives. Access locations that are well-managed and limited in number are two of the defining characteristics of a principal arterial. Limiting access improves safety, operation, mobility, and capacity by restricting where vehicles enter and exit the highway and reducing conflict points. Under the Proposed Action, access to WIS 29 would be provided solely at interchanges as private and public at-grade intersections would be eliminated.

While this study segment of WIS 29 has four interchanges, there are numerous at-grade access locations. These include two intersecting highways (County Highway G, County Highway NN), numerous local roads, and one private special crossing. Under the Proposed Action, direct access to WIS 29 would only occur at interchanges. If access to

WIS 29 is not effectively managed, the long-term result would be a degradation of safety and the level of service provided by the recently improved WIS 29. Limiting access only to interchanges will maintain the corridor investment by providing a safer facility for both regional and local traffic and improving traveler mobility. If the safety and/or the level of service on the segment declines, there would be a diminishing return on the corridor investment. Through the implementation of Wisconsin State Statute. 84.295, the Proposed Action will help protect and preserve WIS 29 through a proactive rather than a reactive corridor management plan.

Safety, Operation, and Mobility

The second component of the purpose and need is to preserve and enhance the long-term safety, operation, and mobility of WIS 29. Current traffic volumes range from 12,200 Average Annual Daily Traffic (AADT) near Cadott to 10,600 AADT near Thorp. Traffic on WIS 29 between Cadott and Thorp is expected to increase to 18,800 and 14,300, respectively, by 2030. Traffic volumes for this section of WIS 29 have been growing at a faster rate than the state average of around 2 percent. Traffic volumes on WIS 29 between Cadott and Thorp have increased approximately 6.54 percent between 1978 and 2003. Since the four-lane conversion in 1993, traffic has increased annually between 7.5 and 9 percent per year.

There is a direct relationship between increased traffic volumes and vehicle conflicts when direct access exists on a facility. As traffic increases on WIS 29, so do the number of conflicts with vehicles entering and exiting from the existing access points on the highway. Currently there are 19 public intersections to WIS 29 that are not interchanges in the project study area. As currently configured, movements to/from the intersecting roads disrupt the flow of traffic as vehicles merge, diverge, and/or cross WIS 29. The mobility deterioration is made worse when semitruck traffic, nonmotorized vehicles, and agricultural equipment is considered. This section of WIS 29 is experiencing a greater number of nonmotorized vehicles with Amish and Mennonite communities moving into the area. These projected volumes will increase the conflict between motorized, nonmotorized vehicles, and farm equipment. Higher WIS 29 traffic volumes also increase the exposure for both motorized and nonmotorized vehicles at the at-grade intersections along the corridor. Without proactive corridor management, there is likely to be an increase in crashes, especially crashes typical of at-grade intersections such as side-swipe, angle, and rear end.

Local land development is also a factor as to how WIS 29 functions into the future. It is common for land development pressures to increase once a road has been expanded from two to four lanes and this has been the case with WIS 29. With the construction of four lanes in the mid-1990s and early 2000s, the additional capacity has brought both increased traffic and accessibility to the area. These are elements that help facilitate land development, particularly highway-oriented commercial uses. Though much of the land use along WIS 29 is currently rural and agricultural in nature, land development pressures could incrementally convert the area to more intensive uses, particularly around the existing at-grade intersections. Development pressures currently exist at both WIS 29/County Highway G and County Highway NN at-grade intersections. These pressures could also potentially exist at every local road intersection within the project segment. The traffic from future land development traffic will increase the safety, operation, and mobility challenges along the corridor over time. Anticipated challenges include side-road traffic having difficulty finding sufficient gaps in the WIS 29 traffic to access or cross the highway. As traffic movements become increasingly difficult, drivers engage in more risk-taking movements that may inhibit mobility and compromise the safety of WIS 29. As traffic and land development pressures along WIS 29 change over time, WIS 29 must also adapt to safely accommodate those changes.

Land Use/Transportation Planning and Coordination

The third component of the purpose and need is to coordinate the state's transportation planning effort with local comprehensive planning initiatives. Commonly recognized as Wisconsin's "Smart Growth" legislation, significant changes to planning-related statutes were approved through the 1999-2001 state biennial budget. There are various definitions for the term Smart Growth; however for Wisconsin, the statutes focus on the development and implementation of local comprehensive plans. A new grant program for comprehensive planning was also established to provide local governments with financial assistance for the preparation of comprehensive plans. Smart Growth for Wisconsin ensures that by 2010, every city, village, county, and town in the state will be guided by a comprehensive plan as defined by state statutes.

The communities of the WIS 29 study area are included in this state mandate. Because only some of the communities directly located on WIS 29 are in the process or have adopted a plan that is consistent with the Smart Growth legislation, the remaining will soon need to initiate Smart Growth planning to meet the 2010 deadline.

A collaborative planning effort between the local units of government and WisDOT to respond to transportation improvements is beneficial to both parties. Access changes to WIS 29 are an important factor in local land use planning initiatives. Identifying local land use priorities helps guide the freeway conversion process by identifying local roadway network needs. Understanding local land use priorities also helps manage the timing of future improvements. Conversion of land to more intensive uses is currently occurring on WIS 29 and is expected to increase over time. Identifying where cul-de-sacs, grade separations, interchanges, and enhanced local road connections will be located will facilitate and compliment land use and transportation planning at the local level.

One principal benefit of this coordination is to provide certainty to both property owners and local communities as to the future rights-of-way needed for freeway conversion improvements to WIS 29. Improvement footprints would be identified and preserved through Wis. Stats. 84.295 as part of the Proposed Action. Such certainty would help minimize costly relocations and/or disruptions to property owners. It would also ensure future land uses and/or developments would not preclude or be incompatible with freeway conversion improvements. In summary, collaboration between local land use and state highway planning effort would help provide a sufficient and proactive balance of land use and transportation, thereby maximizing local and state planning efforts.

Description of Existing Facility Characteristics

Existing Facility

The existing facility was upgraded from a two-lane highway to a four-lane expressway in 1992-1994. It consists of a four-lane, divided roadway with two 12-foot lanes in each direction, separated by a 60-foot median. There are 10-foot outside shoulders and 6-foot inside shoulders. Three feet of the inside shoulders and eight feet of the outside shoulders are paved. The four-lane road stretches 21.84 miles (Cadott to Thorp) with interchanges at County Highway V/D at Boyd, County Highway X/H at Stanley, and WIS 73 (north) at Thorp. There is also a grade separation with County Highway X traveling over WIS 29 just west of the interchange at Boyd.

Crashes

Currently WIS 29's crash rate is below the state average for both rural interstate and rural state trunk highways. Recently there have been several high-profile crashes involving fatalities at highly used at-grade intersections throughout the corridor. One of these crashes occurred at the County Highway NN intersection, which is used as a primary access to the City of Stanley's high school. It is anticipated that as intersection usage increases, crash exposure will increase and intersection-specific safety improvements will be needed. Tables 2.03-1 and -2 illustrate the crash rate for this section of WIS 29.

Crash Rate Summary with Deer Crashes

Highway:	WIS 29: County Highway X to Blue Mounds Ave
Location:	Cadott to Thorp
Description:	1999-2003 Crashes
Number of Years (n):	5
Total Number of Crashes:	109
Total Number of FAT Crashes:	2 1.8 percent
Total Number of INJ Crashes:	46 42.2 percent
Total Number of PD Crashes:	61 56 percent
Average Daily Traffic:	10,333
Segment Length:	21.84 miles
Average Yearly Total Crash Rate:	31
Average Yearly Fatal Crash Rate:	0.57
Average Yearly Injury Crash Rate:	13

Highway 29 Average Crash Rates (Excludes Deer Crashes)									
Year	Fatal Injury Total Crash Crash Year Rate Rate Rate								
1999	33.4	0.00	18.2						
2000	39.9	0.00	11.8						
2001	27.3	1.44	12.9						
2002	32.6	1.36	16.3						
2003	21.9	0.00	6.4						

Operation Levels

The operation of a roadway (e.g., congestion level) is typically described as "Level of Service" (LOS). The LOS rating system describes the traffic flow conditions of roadways and intersections and ranges from A (free flow conditions) to F (over capacity). For four-lane facilities, the LOS signifies the ability of a vehicle to move at the traveler's desired speed. At stop-controlled intersections, LOS measures the amount of delay (in seconds) that an average driver will have to wait.

For the WIS 29 four-lane corridor, traffic operations are good with LOS A. In the year 2030, traffic operations are projected to remain good with an LOS B.

Intersection operation is less favorable during the peak hours. Currently the average side-road LOS is C during the peak hour. By the year 2030, side-road LOS will deteriorate to LOS F with average delays of up to over 80 seconds during the peak hour.

3. Summary of the alternatives considered and if they are not proposed for adoption, why not. (Identify which, if any, of the alternatives is the preferred alternative.)

3.01 SUMMARY OF BASIC ALTERNATIVES

1. No Action

With the No Action alternative no improvements would be made to WIS 29. At-grade intersections would remain and no grade-separated structures would be constructed. Routine maintenance would occur, but future improvements would not be mapped. Therefore property owners could develop in lands needed for future highway improvements, increasing the cost of those future highway improvements and disrupting property owner operations. Local residents and municipalities may also orient land uses around highway accesses that would not be there in the future. For these reasons, the No Action Alternative is <u>not</u> the preferred alternative.

2. WIS 29 Freeway Designation and Conversion, Immediate Implementation

This alternative would designate and convert this section of WIS 29 to a full freeway within the next five to ten years. All intersections would be either closed with the local road given a cul-de-sac or made into grade separations. Local governments may initiate the conversion of two of the proposed grade separations into full access interchanges. This alternative would require a substantial financial investment in the corridor before safety and operational needs fully justify the improvement. This would direct highway funds to this corridor and away from other corridors that may have more pressing needs. For this reason, the immediate freeway conversion alternative is <u>not</u> the preferred alternative.

3. WIS 29 Freeway Designation and Conversion, Incremental Implementation

This alternative would designate this section of WIS 29 as a full freeway, but the physical conversion would occur incrementally. As the roadway is declared a freeway, the future needed right-of-way would be officially mapped. The actual physical freeway conversion of WIS 29 would occur incrementally, with grade separations, interchanges, and cul-de-sacs being constructed when they are needed. This alternative preserves needed right-of-way yet does not require infrastructure investments before they are needed. For this reason, the Freeway Designation and Conversion, Incremental Implementation is the preferred alternative.

3.02 FREEWAY CONVERSION DETAILS

While the physical conversion of this section of WIS 29 will not occur until it is needed, the future condition of each access point was determined. This information was then used to officially map the future right-of-way needs. Generally only one grade separation is provided between communities, which are roughly spaced 6 miles from each other. The one exception is between Stanley and Thorp where physical barriers associated with the North Fork of the Eau Claire River decrease local road connectivity. Between Stanley and Thorp, two grade-separated crossings are being proposed.

The following paragraphs describe each access point, its future condition with freeway conversion, and why that future condition was selected.

1. Cadott to Boyd

- a. 270th Street will become a cul-de-sac on both sides of WIS 29. 270th Street is 1 mile from WIS 27, which provides north/south connectivity for local residents. Local representatives also indicated that 270th Street is not highly used. For these reasons, there is not a high need to provide a grade-separated crossing for the roadway.
- b. 290th Street will become a cul-de-sac on both sides of WIS 29. While 290th Street is roughly equidistant from Cadott to Boyd, the railroad line dips south of County Highway X at this location. This railroad alignment makes it difficult to accommodate the profile changes that would occur on 290th Street. For this reason, 290th Street was not grade-separated.
- c. 300th Street will be a grade-separated crossing of WIS 29, with 300th Street traveling over WIS 29. 300th Street was chosen for a grade separation because it is used by emergency response vehicles to cross WIS 29 as well as west Boyd residents to access WIS 29. 300th Street also provides north-south connectivity for the Amish Community. 300th Street also does not have the physical constraints posed by the other potential crossing locations.
- d. The special agricultural crossing east of 300th Street will be removed.

2. Boyd to Stanley

- a. 320th Street will become a cul-de-sac on both sides of WIS 29. 320th Street is already a cul-de-sac north of WIS 29, and south of WIS 29 the roadway only travels a quarter mile. North/south connectivity for the residents on 320th Street is provided by County Highway D, only one-half mile away. For these reasons, a grade separation was not considered for this intersection.
- b. 330th Street will become a cul-de-sac on both sides of WIS 29. 330th Street is already a cul-de-sac on the south side of WIS 29. Discussions with local officials indicate that 330th Street serves mostly local traffic, with the exception of one industrial property using it for deliveries. Generally higher traffic volumes are experienced by County Highway G, one mile to the east. For this reason, 330th Street was not considered for grade separation.
- c. County Highway G will be a grade-separated crossing with County Highway G traveling under WIS 29. County Highway G has seen increased usage as employees from the new prison use it to access and cross WIS 29. The roadway is also used by emergency services and dairy trucks as it is roughly equidistant between Boyd and Stanley. Officials from the county have indicated that they also support constructing an interchange at this location should the needs warrant it. Therefore this document

considers the impacts associated with local governments constructing an interchange at this location. WisDOT will map the grade separation while local entities map the right-of-way needed for the interchange ramps.

d. 345th Street will be a cul-de-sac on both sides of WIS 29. 345th Street does not continue south of County Highway X and is only one-half mile east of County Highway G, which will provide north/south access across WIS 29. 345th Street does provide access to an ethanol plant on the north side of WIS 29. However, the roadway is weight-restricted and therefore should not be carrying large amounts of truck traffic. The access to WIS 29 that 345th Street provides is better provided by County Highway G, which is a higher quality road that is not weight-restricted.

3. Stanley to Thorp

A more detailed alternative screening process was used to determine access types and crossings between Stanley and Thorp. A total of five access options were developed and evaluated by an advisory committee made up of local officials from the adjacent municipalities. The following bullets summarize the results of the process, the proposed access modifications, and reasons for those modifications.

- a. For most of the study area, one-grade separated crossing was being proposed between communities. Between these communities there are local roads that run parallel to WIS 29 and provide good connectivity for the local road network. However the North Fork of the Eau Claire river runs north/south between Stanley and Thorp. This river has decreased the number of continuous roadways that run parallel to WIS 29 between Stanley and Thorp, particularly on the south side of WIS 29.
 - The study looked at increasing local road connectivity by connecting Hixwood Avenue west of the river to Hixwood Avenue east of the river. A preliminary alignment, which required one relocation as well as several acres of wetlands, was presented to both local officials and resource agencies. Both the local officials and resource agencies voiced opposition to the connection because the benefits of the connection did not appear to outweigh the natural and social impacts. For this reason, the Hixwood Avenue extension was dismissed from consideration. Instead, two grade-separated crossings of WIS 29 are being proposed, with a grade-separated crossing serving the local road network on each side of the North Fork of the Eau Claire River.
- b. County Highway NN will become a cul-de-sac on both sides of WIS 29. While County Highway NN is a well-used roadway and serves both the hospital and the east side of Stanley, it is only one mile from the County H interchange serving Stanley. There was a strong desire by the City of Stanley to have an interchange on the east side of the City that could serve their future business park as well as the hospital. Yet because of minimum interchange spacing, a grade separation placed at County Highway NN could not be made into an interchange. Therefore most City and Town officials supported placing a grade-separated crossing at a location that would have acceptable spacing for interchange conversion in the future. For these reasons, County Highway NN was not chosen to have a grade separation.
- c. Copenhaver Avenue will have a grade-separated crossing with Copenhaver Avenue traveling over WIS 29. The City of Stanley will be mapping the additional right-of-way needed to convert this crossing to an interchange in the future. Several reasons supported the grade separation of Copenhaver, including maintaining a reasonably short travel route to a Mennonite Church, providing access to a future business park, and not precluding a future interchange on the east side of Stanley.
- d. Road No. 2 (Roger Creek Ave.) will continue with a cul-de-sac on both sides of WIS 29. On both sides of WIS 29, Road No. 2 is only one-half mile long and provides only local property access. Alternate access to cross WIS 29 will be available three quarters of a mile to the west (Copenhaver Ave.) and one and one-quarter mile to the east (Koser Ave.)
- e. Koser Avenue will become a grade-separated crossing with Koser Avenue traveling over WIS 29.

 Discussions with local officials indicated that maintaining Koser Avenue access across WIS 29 was important because the North Fork of the Eau Claire River runs north/south through the town and hinders local road connectivity. Koser Avenue also provides an important function for school bus access (Koser is the boundary between two school districts), emergency response access, and access to local industries. Koser Avenue also is equidistant between Stanley and Thorp.

- f. Dickerson Avenue will become a cul-de-sac on both sides of WIS 29. Currently Dickerson Avenue is a cul-de-sac on the north side of WIS 29. While there is a concrete block manufacturer in the southwest quadrant, discussions with local officials indicated that Dickerson Avenue is primarily used for local purposes and most of its functions could be transferred to the adjacent Koser Avenue. Hixwood Road will need to be upgraded to an all-weather road without weight restrictions from Dickerson Avenue to County highway M to the east.
- g. Road No. 5 (Tieman Avenue) will become a cul-de-sac on both sides of WIS 29. While this roadway does provide access to Thorp's water treatment plant, a storage warehouse, and a TIF district, it is most important because of access to WIS 29, not across WIS 29. Because Road No. 5 is only 1 mile from the WIS 73 interchange, it could not be an interchange providing access to WIS 29. For this reason, it will be a cul-de-sac.

3.03 CORRIDOR PRESERVATION MEASURES-OFFICIAL MAPPING

Official mapping is sometimes called a map of reservation. It is, "...a planning tool available to state and local governments that allows land within a proposed transportation corridor, park, or other planned public facility to be reserved for future acquisition." Different levels of government have authority to map corridors under different state statutes. Under Wisconsin Statute 62.23 (6), the councils of cities and villages can prepare official maps that establish exterior lines for planned new streets, highways, railroads, historic districts, parkways, parks, and playgrounds as well as for the widening or extending of current facilities. Generally, building permits will not be issued for building or enlarging a building within the limits identified on the official map. If construction does take place within right-of-way or other limits, the owner is not entitled to compensation for any damage to the building that may occur during construction of the planned facility shown on the map. Towns can exercise the municipal mapping authority if they adopt limited village powers.

The Wisconsin DOT can also officially map a corridor. Wisconsin Statute 84.295(10) gives the state the authority to officially map anticipated right-of-way needs for future freeways and expressways. Persons who want to construct within the right-of-way must notify WisDOT of their intentions.

Counties are given mapping authority under Wisconsin Statute 80.64. The county board may map planned new streets and highways or improvements; however, persons who want to build within mapped limits do not need to obtain a building permit or notify the government.

Corridor preservation can be exercised by municipalities along the corridor by official mapping. As mentioned previously, this document evaluates the effects from the construction of the proposed alternative. The preferred alternative will not be implemented for 10 to 15 or more years. WisDOT will officially map future right-of-way needed for freeway conversion under Wisconsin Statute 84.295(10). WisDOT will also work cooperatively with local governments to help them map right-of-way needed for future interchange conversion under Wisconsin Statute 80.64 and 62.23(6).

4. In general terms, briefly discuss the construction and operational energy requirements and conservation potential of the various alternatives under consideration. Indicate whether the savings in operational energy are greater than the energy required to construct the facility.

Highway energy consumption manifests itself in the raw materials and fuels used to construct, operate, and maintain a highway facility. Construction energy is comprised of the raw materials and equipment necessary to build and maintain the highway. Fuel consumption is affected by the type of vehicle using the roadway, the travel speed, geometry, congestion, and condition. For the eight proposed cul-de-sac areas, minor energy will be required to construct the cul-de-sac and close access to WIS 29. Additional energy and/or trips will be required of farmers and local residents for their trips that cross or access WIS 29. However, decreasing the number and changing the type of access will benefit safety.

The energy required to construct the grade separation structures will be less than the energy required for later interchange development. Some minor cost savings in fuel use may result on heavily used side roads where vehicles will no longer need to stop to cross WIS 29. Over the design life of the facility, savings in operational energy are not anticipated to offset the energy required to construct the preferred alternative because of the increased route distance created by the installation of cul-de-sacs.

- 5. Describe existing land use (Attach land use maps if available).
 - a. Land use in immediate area.

The land use in the area of the project is over 75 percent agricultural. The agriculture consists mostly of row crops and pasture operations associated with dairy farming and livestock. The rest of the land is almost equally divided between forested areas and nonforested wetlands. There are residential and commercial areas north of WIS 29 at Boyd and Thorp and on both the north and south sides of WIS 29 at Cadott and Stanley.

Various industrial parks are associated with the municipalities of Stanley and Boyd with some portions of these and other industrial lands visible from the highway. The development of business parks has been considered in the planning for this freeway conversion project. Locations of notable building or business parks in the corridor are noted here and on the map provided in Exhibit A: (1) southwest of Stanley on the north side of WIS 29 between West Maple Street and WIS 29; (2) southeast of Stanley on the north side of WIS 29 between County Highway NN and Copenhaver Avenue; note that this area includes a recently constructed hospital; and (3) southwest of the existing WIS 73/WIS 29 interchange near Thorp.

City of Thorp wastewater treatment lagoons exist northeast of the proposed cul-de-sac area of Tieman Avenue. An idle wetland corridor separates this area from other portions of the city. No other public facilities are in proximity to the project.

b. Land use in area surrounding project area.

Agricultural land uses predominately surround the area occupying about 60 to 75 percent of the land. The forested areas make up about 25 percent of the land. About 5 percent of the remaining land is urban (residential and commercial) in the cities/villages of Cadott, Boyd, Stanley, and Thorp; 5 percent is nonforested wetland and open water, and 5 percent is transportation, communication, and utility facilities.

5.02 ENVIRONMENTAL CORRIDORS AND RESOURCES

A. Environmental Corridors

With the predominately agricultural and broadly spaced small community sediment dregs in the WIS 29 project area, there is substantial land and habitat that serve various habitat needs and ecological requirements. Therefore the wooded habitat and wetland corridors in the area fill a smaller habitat role than their counterparts would in a metropolitan area. The availability of high land minimizes development encroachment into floodplains and natural habitats.

Various waterways exist within wooded drainages or lightly grazed riparian areas and serve as the food, cover, and water (habitat) needs for most terrestrial and aquatic species in the area. Because the WIS 29 alignment has existed within this landscape since the 1960s, there will be no bisection of environmental corridors. Similarly, most side-road alignments have been in place since original construction or that completed in the early 1990s. Construction of interchanges at County Highway G and Copenhaver Avenue will not bisect or substantially affect species that rely on environmental corridors or resources. The grade separation structures and embankments at 300th Street and Koser Avenue will have minor impacts to wetlands as a result of the fill needed for the approaches. The Koser Avenue area contains pastured and ditch-like wetlands in an agricultural setting. 300th Street has a narrow stream corridor which is a tributary of Turner Creek that has irregular wetland edges and a fair amount of upland habitat/woods. This wooded area is between 200 to 400 feet wide with habitat to the west with a small drainage and environmental corridor to the east. This area is an environmental corridor/resource that parallels WIS 29 to the north.

Exhibit B contains mapping sheets that show the land types described here and the balance of other project limits.

B. <u>Groundwater</u>

The USDA Natural Resources Conservation Service describes the depth and protection of groundwater along the project corridor to be fair. Availability is poor to good with somewhat low production in shallow drift areas. Groundwater in the Cambrian and Precambrian formations, thick glacial drift, and gravel areas along streams is good. These areas can produce 100 to 1000 gpm. Most groundwater is soft with some high concentrations of iron,

manganese, and sulfides in some areas. Clark County groundwater also contains low dissolved solids, sulfates, and chlorides. Nitrates are of concern and have been detected in 80 percent of the wells in Clark County.

C. Wetlands and Water bodies

Mapped wetlands in the project area are few and are generally associated with riparian drainageways or creeks in the corridor. A cursory off-site wetland data review and dormant season/windshield survey of the project area was used to approximate potential wetland impacts. In general, the common criteria for locating wetlands followed this process: (1) Wetland symbols or mapping based on flight/plan data, (2) USGS Topo Maps, (3) USDA Soil Survey Maps and hydric soil types, (4) project aerials, (5) observation of field use, and (6) windshield/dormant season field observations. Wetland types are described below.

- 1. Wet Meadow (M) wetlands were observed and can be primarily avoided at the following cul-de-sac areas: 270th Street and Tieman Avenue (Road #5) (Sheets 1 and 11).
- 2. Riparian (RPF/RPE) and Wet Meadow (M) wetland fills will be required for grade separation structures at 300th Street and County Highway G (Sheets 2 and 5). The 300th Street area will involve replacement of an old culvert within a navigable waterway and navigable waterway issues will need to be addressed including a Chapter 30 permit in addition to the standard wetland fill permits.
- 3. Actual wetland impacts will be determined by delineations during the design stage and prior to permitting. Wetland avoidance and protection and permitting will follow FDM and Standard Specification guidance.

D. <u>Lakes and Open Water</u>

Open water and recreationally important lakes in the area are somewhat few. A few lakes, such as Chapman Lake in Stanley, exist in the project area and none are within areas of the proposed improvements. A review of the Surface Water Resources Map for Chippewa and Clark Counties identifies the Tributary to Turner Creek to be a near project waterway. WIS 29 also crosses the North Fork of the Eau Claire River. For the most part, drainages in the corridor do not directly convey water to streams, rivers, or lakes.

E. Threatened and Endangered Species

No specific threatened or endangered species are reported on DNR Bureau of Endangered Resources on-line mapping for the immediate project areas. The DNR project letter identifies species that are recorded for the Chippewa and Clark County corridor. The following represents excerpts from the March 6, 2006, DNR coordination letter.

Throughout the project corridor there were three records found in the Natural Heritage Inventory (NHI) database. *Crangonyx graciis* (side swimmer, Crustacean group) is listed as a special concern species. The *Diadophis punctatus edwardsii* (northern ringneck snake) is also listed as a special concern species. *Emydiodea blandingii* (Blanding's turtle) is a threatened species. Because of the surrounding landscape of the project areas, adverse impacts to the *Crangonyx graciis* (side swimmer) are not anticipated. None of these species are on federal lists. The DNR indicates there may be suitable habitat for the *Diadophis punctatus edwardsii* (northern ringneck snake), which prefers moist deciduous forests. This habitat may be found near the 270th Street cul-de-sac on the north side of WIS 29. The proposed southern cul de sac is surrounded by fields and buildings. There are no concerns associated with this option. Although there are no specific regulations for special concerns species, care should be taken when working in the wooded area.

See the DNR letter regarding the Blanding's turtle habitat needs. Blanding's turtles do not typically use rivers and streams during the active season except as travel corridors between more suitable habitat. They may use aquatic aspect of streams for foraging along a riparian corridor as they move between sites. Blanding's turtles will use streams and rivers for overwintering. Construction over streams and rivers is typically not of concern. Because this project is not expected to go into construction or a detailed design for several years, a final concurrence from the DNR can address issues identified and discussed during design. Of the habitat areas observed, only the grade separation footprint and waterway area associated with 300th Street would appear to justify a field review for vegetation or animal species that may be protected.

F. Air Quality

Eastern Chippewa and Clark counties are attainment areas as based on the DNR reference documents. There are no known local air quality issues and an air analysis is not required by this project.

G. <u>Historic Structures and Archaeological Resources</u>

Elizabeth Miller's and Great Lakes Archaeological Resource Consortium (GLARC) project review identified neither historic structures nor archaeological resources within the project's area of potential effect (APE).

H. Park and Recreation Land

Cadott–Riverview Park on Yellow River; state wayside on WIS 27.

Boyd-Lotz Park

Stanley–Fandry Park–Located on the shores of Chapman Lake, Chapman Park, on the west side of Stanley, offers campgrounds with electricity and showers, picnic areas, shelters, playgrounds, swimming pools, ball fields, tennis courts, and a wild game park.

Thorp—has a variety of parks including Northside Ball Park, Keating Park, Thorp City Park, Conway Park, Swimming Pool Park, and Veterans Memorial Park.

The current proposal will not affect any of the above-listed parks.

6. Briefly identify adopted plans for the area and discuss whether the proposed action is compatible with the plan. (For example, the following may be considered: Regional Planning Commission Plans, Transportation Improvement Program, State Transportation Improvement Plan, Local zoning and land use plans, DOT Storm Water Management Plans, others.)

The land use plans for the Cities of Stanley and Thorp as well as the Town of Thorp are attached. The pertinent areas of the Clark County land use plan are also attached. The proposed freeway conversion is compatible with current land use plans that have been adopted or are being considered. Special consideration was given to providing appropriate access to Business Parks being planned in Stanley and Thorp.

- 7. Early coordination with Agencies.
 - a. Intra-Agency Coordination

Bureau of Aeronautics

- No Coordination is not required. Project is not located within 2 miles (3.22 kilometers) of a public or military use airport, nor would the project change the horizontal or vertical alignment of a transportation facility located within 6.44 kilometers (4 miles) of a public use or military airport.
 - Yes Coordination has been completed and project effects have been addressed. Explain.
- ii) Regional Office Real Estate Section
 - ☐ No Coordination is not required because no inhabited houses or active businesses will be acquired.
 - Yes Coordination has been completed. Project effects and relocation assistance have been addressed. Conceptual Stage Relocation Plan attached as Exhibit C was developed by Strand Associates, Inc.

b. Interagency Coordination

STATE AGENCY	COORDINATION	COMMENTS
	Correspondence	Explain or give results. If no correspondence is attached to this
	Attached	document, indicate when coordination with the agency was initiated and,
	Y/N	if available, when coordination was completed.
Agriculture (DATCP)	Y	In their February 2006 letter, DATCP deferred comment until the proposed activity is likely to be constructed to more accurately reflect the concerns of the farm owners.
Natural Resources (DNR)	Y	General concurrence letter. Letter identifies measures to consider in minimizing harm to natural environment.
State Historical	N	Anticipated concurrence is pending based on results of Arch/Historical
Society (SHS)	IN	consultant.
Others:		Consultant.
FEDERAL AGENCY		<u> </u>
Advisory Council on	N	See SHS note above.
Historic Preservation		
(ACHP)		
US Army Corps of	N	A letter was sent to USACOE summarizing the project and its effects. No
Engineers (USACOE)		response has been received to date.
US Environmental	N	A letter was sent to US EPA summarizing the project and its effects. No
Protection Agency		response has been received to date.
(EPA)		·
National Park Service	No	No coordination to date.
(NPS)		
Natural Resource	N	A letter was sent to NRCS summarizing the project and its effects. No
Conservation Service		response has been received to date.
(NRCS)		·
US Coast Guard	No	Not applicable.
(USCG)		
US Fish & Wildlife	No	A letter was sent to US FWS summarizing the project and its effects. No
Service (FWS)		response has been received to date.
Other(Identify)		The agency coordination letter was mailed February 6, 2006, with a
` ',		request for responses by March 15, 2006. Acknowledgement of
		responses or details regarding the response are included above if
		received by March 20, 2006.

c. Local Government Coordination

LOCAL UNIT OF GOVERNMENT	COORDINATION	COMMENTS				
	Correspondence	Explain or give results. If no correspondence is attached to this				
	Attached	document, indicate when coordination with the agency was initiated and,				
	Y/N	if available, when coordination was completed.				
Cadott	Y	Involvement included attendance and responses at Public Meetings as				
		documented in public involvement section.				
Boyd	Y	Same as above.				
Stanley	Yes	See above.				
Thorp	Y	See above.				
Towns of Goetz,	Yes	See above.				
Delmar, Sigel, Edson,						
Thorp, Wordent,						
Withee, Reseburg						

ENVID CAMENTAL						
ENVIRONMENTAL FACTORS	EFFECTS					
	Adverse	Benefit	None	*A/N*	Comments	
SOCIO-ECONOMIC FACTOR	RS					
General Economics					The travel and intersection safety improvements proposed for this four-lane highway will provide a safer, more efficient roadway. WIS 29's connection to Green Bay and the Fox Valley on the east and I-94 and the Twin Cities on the west continues to foster economic development, including tourism, along the corridor. The corridor also efficiently moves a substantial number of goods between metropolitan manufacturing centers. Some local disruption to local travel patterns caused by access closures may affect some rurally located businesses. Alternate routes have been established in coordination with local officials to minimize this disruption.	
Community & Residential				The crossroad access closures and grade separations will provisafer access to Cadott, Boyd, Stanley, and Thorp for all highward users. There will be four grade separation structures, which will increase side-road trip length and will increase the use of current interchanges.		
				One farm/farmstead relocation is required for the Copenhaver Avenue grade separation and another is required if the grade separation is converted to an interchange.		
					No slope intercepts from the grade-separated structures directly impact occupied structures, and the noise analysis does not reveal impacts or the need for mitigative measures.	
					When the grade-separated structures are designed, the design process will review and reconfirm the need for relocated driveways, access roads, and relocations. Specific review areas will include: (a) the farm house southwest of the County Highway G/WIS 29 intersection; (b) the bar/tavern and house in the southeast quadrant of Koser Avenue/WIS 29 at the base of proposed fill slopes; and (c) a vacant rural farmstead house in the northeast quadrant of the Koser Avenue/WIS 29 intersection. See Conceptual Stage Relocation Plan for details regarding potential relocations.	
Economic Development and Business					Overall, this project will help to promote economic development in the WIS 29 area by maintaining excellent access and improving roadway safety. Some businesses located on roadways whose access will be removed from WIS 29 may experience some hardship. See Factor Sheet for further detail.	
Agriculture					Approximately 75 percent of the area needed for right-of-way (R/W) is used for agriculture. About five to eight farms will be involved in R/W acquisition needs. Most of these are minor. Operations at the two farms associated with the County Highway G interchange will be modified slightly based on farm access changes. One farm operation at Copenhaver Avenue will be relocated in the southwest quad for the grade separation associated with the freeway conversion. A farm operation in the southeast will be relocated if local governments construct an interchange at this location. A special crossing just east of 300th Street will be removed, landlocking 64 acres from a	

					150-acre parcel. Routes for some farm operations will be impacted by the closing of some side roads. See Agricultural Factor Sheet and Conceptual Stage Relocation Plan for details.		
Environmental Justice					The Amish and Mennonite communities received notice regarding the project and have provided input. The grade separation structures on 300th Street and Copenhaver Avenue will improve safety for non-motorized travel across WIS 29. The needs of these two communities were considered in the location of these two grade-separated roadways, and the bridges will be constructed with a wider cross section to accommodate horse-drawn vehicles. With the closure of other roadways crossing WIS 29, both 300th Street and Copenhavel Avenue will experience more traffic.		
NATURAL ENVIRONMENT F	ACT	ORS					
Wetlands					Approximately 2.14 acres of wetlands will be disturbed or filled for ramps and approaches. This includes one navigable waterway at 300th Street. WisDOT will perform a wetland delineation during design when the physical freeway conversion is implemented. Mitigation is anticipated to be provided by debiting impacts to a WisDOT banksite unless there is potential for on-site wetland mitigation adjacent to the R/W from willing sellers.		
Streams & Floodplains					The fill and impacts to the waterway north of the WIS 29/300th Street intersection will require a new culvert/extentions and local riparian floodplain fill. No backwater effects are anticipated in adjoining areas.		
Lakes or Other Open Water					No lakes or open waters other than the above-noted waterway are directly impacted by this project. Regionally identified lakes and open waters are noted on the text. No factor sheet is provided.		
Upland Habitat			\boxtimes	\boxtimes	Minor upland habitat exists. Most is associated with woodlands bordering the road or R/W. Impacts would only occur if the WIS 29 roadway itself were modified, instead of the crossings or access points. No factor sheet is provided.		
Erosion Control					Standard erosion control measures will be used to minimize adverse effects to surrounding areas. Construction site erosion and sediment control will be part of the Project's design and construction as required by Trans 401 Wis. Admin. Code and the DOT/DNR Cooperative Agreement.		
Storm Water Management	\boxtimes		\boxtimes		Adverse effects identified during design would result in development of an appropriate stormwater management plan based on increases in impervious surfaces.		
PHYSICAL ENVIRONMENT	FACT	ORS	3				
Air Quality			\boxtimes		No change anticipated.		
Construction Stage Sound Quality					To reduce the potential impact of construction noise, the special provisions for this project will require that motorized equipment shall be operated in compliance with all applicable local, state, and federal laws and regulations relating to noise levels permissible within and adjacent to the project construction site. At a minimum, the special provisions will require that motorized construction equipment shall not be operated between 10 p.m. and 6 a.m. without the prior written approval of the project engineer. All motorized construction will be required to have mufflers constructed in accordance with the equipment manufacturers specifications or a system of equivalent noise reducing capacity. It will also be required that mufflers and		

Traffic Noise			\boxtimes		exhaust systems be maintained in good operating condition, free from leaks and holes. See factor sheet on page 41. A preliminary noise analysis was performed in accordance with TRANS 405. Minor impacts are identified with no mitigative option required. See the factor sheet.	
CULTURAL ENVIRONMENT	AL F	ACTO	DRS			
Section 4(f) and 6(f)				\boxtimes	No Section 4(f) or 6(f) properties are affected.	
Historic Resources					No buildings or structures having potential architectural and/or historical significance to warrant eligibility for the National Register of Historic Places were identified within the project's APE. The proposed project will have no adverse effect on any architectural/historical properties.	
Archaeological Resources					Pending and based on information availabe to date.	
Hazardous Substances or USTs					One site could potentially warrant a Phase 2 HazMat review, yet the plume for this site is directed away from the proposed construction a cul-de-sac. Therefore, no Phase 2 is recommended. During design, the limits of construction will need to be monitored to confine that construction activities will not encroach inside this plume.	
					A second site contains operational and nonoperational field equipment, stored fluids, and other materials of potential environmental concern and should be addressed during the R/W acquisition phase to more thoroughly evaluate the site or arrange for debris removal during demolition.	
Aesthetics					Creation of two additional grade separation structures and the two interchanges at County Highway G/WIS 29 and Copenhaver/STH 29 will alter the aesthetics of WIS 29 for users. When these structures are designed, WisDOT will coordinate with local municipalities regarding possible aesthetic treatments that could be incorporated in the structure design.	
Coastal Zone				\boxtimes	N/A	
Other						

^{*} N/A – Blacked out cells in this column require a check in at least one of the other columns.

ENVIRONMENTAL COST MATRIX

Transportation Improvements

ENVIRONMENTAL	UNIT		ALT	ERNATIVE	S/SECTIOI	NS	
ISSUE	MEASURE	No Build	WisDOT	Locals:	Upgrade		
			8 Culde	2 Inter-	Hixwood		
			Sacs &	changes	to All		
			4 Grd		Weather		
			Sep Strs		Rd		
Project Length	Mi	-	17.1	NA	2.0		
C4 ft	(Km)						
Cost \$	NATU: C	(\$0.00)	#0.50	0.4.70	Φο 70		
Construction	Million \$	(\$0.00)	\$8.50	\$4.76	\$0.70		
Real Estate	Million \$	(\$0.00)	\$0.60	\$0.41	A 0 T 0		
Total	Million \$	(\$0.00)	\$9.10	\$5.17	\$0.70		
Land Conversions	-	T	T	T	_		
Total Area Converted to R/W	Acres	-	19.7	26.2	0		
	(Hectares)						
Wetland Area Converted to R/W	Acres (Hectares)	-	1.05	1.09	0		
Upland Area Converted to R/W	Acres	-	15.0	21.6	0		
·	(Hectares)						
Other Area Converted to R/W	Acres	-	3.5	3.8	0		
	(Hectares)						
Real Estate	,		-				•
Number of Farms Affected	Number	-	18-22	20-25	0		
Total Area From Farm Operations	Acres		4.42	31.7			
Required	(Hectares)						
AIS Required	Yes/No		No	Yes			
Farmland Rating	Score	_	ND	Pending			
Total Buildings Required	Number	_	5	5-8			
Housing Units Required	Number	_	2	1			
Commercial Units Required	Number	_	Farm	Farm			
Other Buildings or Structures Required	Number	_	Above is	Above is			
Other Baharige of Otheracarde Required	(Type)		farmstd	farmette			
Environmental Issues	(.) [-]		10	10			1
Flood Plain	Yes/No	No	No	No	No		
Stream Crossings	Number	-	1	0	0		
Endangered Species	Yes/No	No	Yes	No	No		
Historic Properties	Number	-	No	No	No		
Archeological Sites	Number	-	No	No	No		
106 MOA Required	Yes/No	No	No	No	No		
4(f) Evaluation Required	Yes/No	No	No	No	No		
Environ Justice At Issue	Yes/No	No	Yes	Yes	No		
Air Quality Permit	Yes/No	No	No	No	No		
Design Year Noise Sensitive	1 63/110	INU	2036	2036	INU		1
Receptors	Number	_	3+3	3+3			
No Impact	Number		3+3	3+3 3+3			
Impacted	Number		None	None			
Exceed dBA Levels	HUITIDEI		No >66	No >66			
							<u> </u>
Contaminated Sites	Number	-	1 Phase	1-3 R/W			
			2 & 1	Ac.			
			R/W Ac.	Reviews			
		l	Review				

	errelated social and economic effects. I crimination Act.)	nclude those covered by the Ame	ericans with Disabilities Act and the Age						
spe rep Gra the	ecial effort was made to invite represent resentatives from these communities ex	ratives from both the Amish and Naxplained the routes they use to coway to not increase, or only mining the their nonmotorized vehicles. A	rom the townships, village, and cities. A Mennonite communities. At these meetings onduct business and attend their churches mally increase, the distance members of dditionally, the clear-width of the grade						
a)	Identify sources of data used to determ	nine presence of minority populat	ions and low-income populations.						
	Windshield Survey WisDOT Real Estate US Census Data Official Plan Real Estate Company Identify Real Estate Company Mathison Real Estate and MLS Listings from Realtor.com Human Resource Agency Identify Agency Local Municipalities								
	Identify Plan, Approval Authority, and I	Date of Approval							
b)	Indicate whether a minority population or a low-income population, including the elderly and the disabled, is in the project's area of influence.								
	i) The requirements of EO 12898 are met if both "No" boxes are checked below.								
	☐ No minority population is in the	e project's area of influence.							
	☐ No low-income population is in	n the project's area of influence.							
	ii) If either or both of the "Yes" boxes are checked, item c) below must be completed.								
	Yes, a minority population is within the project's area of influence.								
	Yes, a low-income population is within project's area of influence.								
c)	How was information on the proposed action communicated to the minority and/or low- income population(s)? Check all that apply.								
	 ☐ Advertising ☐ Notices ☐ Public Service Announcements ☐ Other (Identify) Public information 	□ Brochures □ Utility Bill Stuffers □ Direct Mailings meetings and municipality/towns	□ Newsletter □ E-mail □ Key Person hip coordination						
d)	Identify how input from the minority population and/or low-income population was obtained. Check all that apply								
	 ☐ Mailed Survey ☐ Public Meeting ☐ Targeted Small Group Informationa ☐ Other (Identify) Project Mailings/No. 		☐ Focus Group Research☒ Key Person Interview☐ Targeted Workshop/Conference						
e)	Indicate any special provisions, which low-income population(s)	were made to encourage particip	eation from the minority population and/or						
	☐ Interpreter	Listening Aids	Accessibility for Elderly and Disabled						

8) Describe how the project development process complied with Executive Order 12898 on Environmental Justice. (EO 12898 requires agencies to achieve environmental justice by identifying and addressing disproportionately high and adverse human health and environmental effects on minority populations and low-income populations, including the

☐ Transportation Provided	☐ Child Care Provided	☐ Sign Language
Other (Identify) Time constraint/co	onsiderations include/included the	he scheduling of meetings during daylight
hours.		

9) Briefly summarize the status and results of public involvement. Briefly describe how the public involvement process complied with EO 12898 on Environmental Justice.

Several alternatives workshops were held at the Thorp Fire District building. Municipal representatives of Stanley, Thorp, Boyd, and Cadott attended in addition to a substantial number of area residents. Representatives from both the area Amish community and area Mennonite community attended. At these workshops, residents had the opportunity to identify roadway functions, prioritize roadways in view of importance, and review and evaluate alternatives.

At these meetings, both the Amish and Mennonite representatives explained the routes their communities use most frequently and why. The Amish had more general needs since their place of worship rotates among the homes in their community. The Mennonite has more specific transportation needs because its church is located on Copenhaver Avenue south of WIS 29. Both the 300th Street grade separation and the Copenhaver Avenue grade separation were placed in a way that minimized extra travel for slow-moving horse-drawn vehicles in the communities.

a) Identify groups (e.g., elderly, handicapped), minority populations and low-income populations that participated in the public involvement process. This would include any organizations and special interest groups.

The city of Stanley, the Mennonite Community, area towns, and the city of Thorp all participated in the public involvement process. The general public, including elderly, handicapped, and low-income populations, and an organized local advisory committee participated in public involvement.

b) Describe, briefly, the issues, if any, identified by any groups, minority populations and/or low-income populations during the public involvement process.

Nonmotorized travel safety and minimizing the length of travel for routes crossing WIS 29 were of primary concern to the Amish and Mennonites (See above). Design options factored these issues into consideration.

The Amish and Mennonite communities were present at some meetings and have also provided written comment. During the January 20 and February 17, 2005 public meetings, the general public and local officials were given the opportunity to express the most important roadway access/crossing points using a corridor map and an adhesive dot. The results from all participants are summarized below.

Number of People with Comment	Comment
7	Indicated that 300th Street connection was the most important because it is valuable as access to Highway 29 and many Amish use the crossing to travel between farms.
6	Felt County Highway G was the most important roadway for access to WIS 29 because the prison employees use the highway to access WIS 29, there is an industrial park on the west side of Stanley that uses the roadway to access WIS 29, and County Highway G is also used to provide emergency response to the northeast side of Boyd.
6	Selected Copenhaver Avenue as the most important roadway between Stanley and Thorp because it provides access to the hospital and it is used as a crossing to access a Mennonite church. If Copenhaver Avenue was not a crossing, Mennonite would have to travel an additional 6 miles to attend their church.
4	Felt Koser Avenue was the most important roadway between Stanley and Thorp because it is halfway between Stanley and Thorp, is a good paved road, and Koser Avenue is in the center of the township and school buses use the roadway regularly.
3	Selected Road No. 5 (Tieman) as the most important roadway between Stanley and Thorp; however, it would not be possible to have an interchange at this location. Therefore, the three people shifted their selection to Koser Avenue because it provided access to Thorp's water treatment plant, TIF district, and west side.

c) Briefly describe how the issues identified above were addressed. Include a discussion of those that were avoided as well as those that were minimized and those that are to be mitigated. Include a brief discussion of proposed mitigation, if any.

As mentioned, the grade separations were placed in such a way as to minimize indirection for nonmotorized vehicles of the Amish and Mennonite communities. Additionally, the clear width of the grade-separated structures will be sized to accommodate horsedrawn vehicles.

TRAFFIC SUMMARY

	ALTERNATE	Preferred	Preferred	Preferred
	SEGMENT TERMINI	Cadott to Boyd	Boyd to Stanley	Stanley to Thorp
TRAFFIC VOLUMES Existing	ADT Yr. 2003	12,200	11,700	10,600
Const. Year	ADT Yr. 2020	16,200	14,700	12,900
Const. Plus 10 Years	ADT Yr. 2030	18,800	16,500	14,300
Design Year	ADT Yr. 2040	21,200	18,300	15,700
	DHV Yr			
TRAFFIC FACTORS	K ₁₀₀ (_{100/200} ,or %)	10.2	10.3	10.3
	D (%)	62/38	62/38	62/38
Design Year	T (% of ADT)	10.7	14.9	14.9
	T (% of DHV)	6.0	8.4	8.4
	Level of Service			
SPEEDS Existing	Posted	65	65	65
	Posted	65	65	65
Design Year	Project Design Speed	70	70	70
OTHER (Specify)	P (% of ADT)	14.1	14.3	14.3
	K (% OF ADT)			

ADT = Average Daily Traffic

 $K_{100/200}$ or % = K_{100} = Rural, K_{200} = Urban, % = ADT in DHV

T = Trucks

DHV = Design Hourly Volume

D = % DHV in predominate direction of travel

P = % ADT in peak hour

 $K_8 = \%$ ADT occurring in the average of the 8 highest consecutive hours of traffic on an average day. (Only required when a carbon monoxide analysis must be performed per Wisconsin Administrative Code - Chapter NR 411.)

ENVIRONMENTAL ISSUES

Indicate whether the issue listed below is a concern for the proposed action or alternative. If the issue is a concern, explain how it is to be addressed or where it is addressed in this environmental document.

1)	Would the proposed action stimulate substantial secondary environmental effects?
	No
	Yes - Explain or indicate where addressed.
	Minor indirect effects are described in the Community and Residential, Economic Development and Business, and Agricultural Impact Factor Sheets. If and when the Copenhaver Avenue interchange is constructed by local governments, some development is likely to occur and is actively being sought by the City of Stanley. A smaller amount of development pressure could exist at the County Highway G interchange if and when it is constructed by the County. Because of the distance from the neighboring communities, development at the County Highway G interchange is less likely.
	Because all other access locations will become cul-de-sacs or grade separations, highway-oriented commercial development is much less likely to occur at random intersections.
2)	Would the creation of a new environmental effect result from this proposed action?
	No
	Yes - Explain or indicate where addressed.
3)	Would the proposed action impact geographically scarce resources?
	No No
	Yes - Explain or indicate where addressed.
4)	Would the proposed action have a precedent-setting nature?
	No
	Yes - Explain or indicate where addressed.
5)	Is the degree of controversy associated with the proposed action high?
	No No
	Yes - Explain or indicate where addressed.
6)	Would the proposed action have any conflicts with official agency plans or local, state, or national policies, including conflicts resulting from potential effects of transportation on land use and land use on transportation demand?
	No No
	Yes - Explain or indicate where addressed.

7) Would the proposed action contribute to cumulative environmental impacts of repeated actions?

☐ No)
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Yes - Explain or indicate where addressed.

As this is the third construction project/road improvement associated with this corridor in the last 50 years, there are contributory effects to repeated actions. This includes increasing the economic development potential in the communities bordering the highway. Some of this development has included highway-oriented commercial. As WIS 29 moves to freeway status, this development around interchange nodes is likely to continue. The indirect effects are described in the Community and Residential, Economic Development and Business, and Agricultural Impact Factor Sheets.

ENVIRONMENTAL COMMITMENTS

Identify and describe any commitments made to protect the environment. Indicate when the commitment should be implemented and who in WisDOT would have jurisdiction to assure fulfillment for each commitment.

ATTACH THIS PAGE TO THE DESIGN STUDY REPORT

A.	General Economics	No Commitments Needed	Designers have worked with local municipalities to map and preserve areas anticipated for later interchange development. Continued coordination will be required regarding design and R/W acquisition.		
B.	Community & Residential	No Commitments Needed	See above. The local jurisdictions have been involved and will continue to be involved when grade separations and culde-sacs are implemented.		
C.	Commercial & Industrial	No Commitments Needed	See above.		
D.	Agriculture	Commitments Made	None. DATCP may need to evaluate the build options associated with the interchanges when and if they are implemented in the future.		
E.	Environmental Justice	Commitments Made	The nonmotorized travel needs of the general public, Amish, and Mennonite have been considered in the location of grade separations and interchanges. When designed, the clear width of structures will be wide enough to accommodate horse-drawn vehicles.		
F.	Wetlands	Commitments Made	Final design shall include delineation and then avoid, minimize, and mitigate wetland impacts.		
G.	Streams & Floodplains	Commitments Made	Tributary to Turner Creek (navigable waterway) will be spanned to the extent possible and no backwater effects shall occur.		
Н.	Lakes or Other Open Water	Not Applicable	None.		
I.	Upland Habitat	No Commitments Needed	None.		
J. K.	Erosion Control Storm Water Management	Commitments Made Commitments Made	Standard. Current erosion control practices will be implemented at the time the improvements are designed and implemented. Standard. Stormwater requirements and		
			storage will be designed to current WisDOT practices when the freeway conversion improvements are implemented.		
L.	Air Quality		·		
	☐ The project is exempt from permit requirements per Wisconsin Administrative Code – Chapter NR 411 criteria.				
	A construction permit is required for this project and an application has been submitted to the Department of Natural Resources – Bureau of Air Management. Construction on the project will not begin until the Construction Permit has been issued. See the Air Quality Factor Sheet.				
	A construction permit is required for this project and has been issued by the Department of Natural Resources – Bureau of Air Management. The Construction Permit Number is . See the Air Quality Factor Sheet.				
M.	Construction Stage Sound Quality				

	To reduce the potential impact of Construction Noise, the special provisions for this project will require that motorized equipment shall be operated in compliance with all applicable local, state and federal laws and regulations relating to noise levels permissible within and adjacent to the project construction site. At a minimum the special provisions will require that motorized construction equipment shall not be operated between 10 PM and 6 AM without prior written approval of the project engineer. All motorized construction equipment will be required to have mufflers constructed in accordance with the equipment manufacturer's specifications or a syste of equivalent noise reducing capacity. It will also be required that mufflers and exhaust systems be maintained i good working order, free from leaks or holes. See Construction Stage Sound Quality Factor Sheet.			
N.	Traffic Noise	No Commitments Needed	No commitment.	
Ο.	Section 4(f) and 6(f)	No Commitments Needed	No commitment	
P.	Historic Resources	No Commitments Needed	No commitment	
Q.	Archaeological Resources	No Commitments Needed	No commitment	
R.	Hazardous Substances or USTs	Commitments Made	During final design, the construction limits of the cul-de-sac proposed for 320th Street will be monitored to see if they encroach on the plume of a former gas station.	
S.	Aesthetics	Commitments Made	WisDOT will coordinate with local municipallities on aesthetic options when the grade separation structures are being designed.	
T.	Coastal Zone	Not Applicable	None.	

☐ No receptors are located in the project area. No impacts are anticipated from construction noise.

U. Other

DT2063 2003

Alternative WIS 29 Freeway Designation and Conversion, Incremental Implementation Preferred Yes	Length of Center line and termini this sheet is evaluating if different from Sheet 1. 21 mi.		
Type of Land	Type of A	equisition	Total Area Acquired
Acquired From Farm Operations	Area Acquired In Fee Simple	Area Acquired By Easement	
Crop land and pasture	Greater or less than 30 Acres	ND Acres	30+- Acres
Woodland	Greater or less than 5 Acres	ND Acres	6+- Acres
Land of undetermined or other use (e.g., wetlands, yards, roads, etc.)	Residential=7.3 Wet=2-3 Acres	Acres	10.5 Acres
TOTAL	Acres	Acres	47 Acres

1. Indicate the number of farm operations from which land will be acquired.

Total Number of Farm Operations from which land will be acquired 24

- a) 15 Number of Farm Operations from which 1 acre or less will be acquired.
- b) 6 Number of Farm Operations from which more than 1 acre but less than 5 acres will be acquired.
- c) 3 Number of Farm Operations from which more than 5 acres will be acquired.
- 2. Identify and describe the effects to farm operations because of land lost due to the project.

Does Not Apply

The land needed for the grade separations associated with the freeway designation and conversion is minimal and generally amounts to less than 5 acres. However, there is a possibility that local governments may convert two of the grade separated crossings into full access interchanges. These potential interchanges are at County Highway G and Copenhaver Avenue. The land requirements for the interchanges are greater.

The farm residences and buildings associated with both of the southern quadrants of the locally initiated Copehaver Avenue/WIS 29 interchange will require full relocation and replacement. Two other parcels associated with the WIS 29 project will require relocated driveways and possible reconstruction of auxiliary buildings associated with the farmstead. Approximately three parcels require access road changes because of driveway relocations. Other than the relocations, no effects to the farm operations are anticipated. The loss of lagoon storage for one parcel will require a new system.

3.	Describe changes i	n access to farn	n operations	caused by	proposed	action.
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□ Does	Not A	≀ рріу
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Two farms will require access relocations to accommodate the grades associated with the grade separated structures. This will alter these operations during either the reconstruction of the farm buildings, or the moving of equipment and operations to other replacement buildings.

A greater effect to farm operations will occur with the closing of access to WIS 29 and the creation of cul-de-sacs. Farmers that farm land on both sides of WIS 29 will have greater travel distances.

	and can be seen in Exhbit C.
4.	Indicate whether a farm operation will be severed because of the project and describe the severance (include area of original farm and the size of any remnant parcels).
	☐ Does Not Apply
	Details are presented in the conceptual stage relocation plan. No farms will be directly severed. The Sorenson farm, which exists on boths sides of Koser Avenue north of WIS 29, will have its access altered. The embankment associated with Koser Avenue's grade separation will raise the profile of Koser Avenue and require the realignment of driveways.
5.	Identify and describe effects generated by the acquisition or relocation of farm operation buildings, structures or improvements, e.g., barns, silos, stock watering ponds, irrigation wells, etc. As appropriate, address the location, type, condition and importance to the farm operation.
	☐ Does Not Apply
	As mentioned, the grade separated crossings associated with the freeway designation and conversion will have relatively minor effects to farms, consisting mostly of the relocating of driveways. The possible construction of interchanges at County Highway G and Copenhaver Avenue by local governments will have greater effects to farm operation buildings. These interchange will require 10-15 Farm Operation Buildings.

One farm will have a special crossing removed. This crossing currently exists just east of the 300th Street intersection

For the grade separated structure at Copenhaver Avenue associated with the freeway conversion, a small 1 acre farm

For the locally initiated Copenhaver Avenue interchange, a farm parcel or SE quadrant of WIS 29/Copenhaver

parcel on SW quadrant will be acquired in full as only a minor economic remnant would remain.

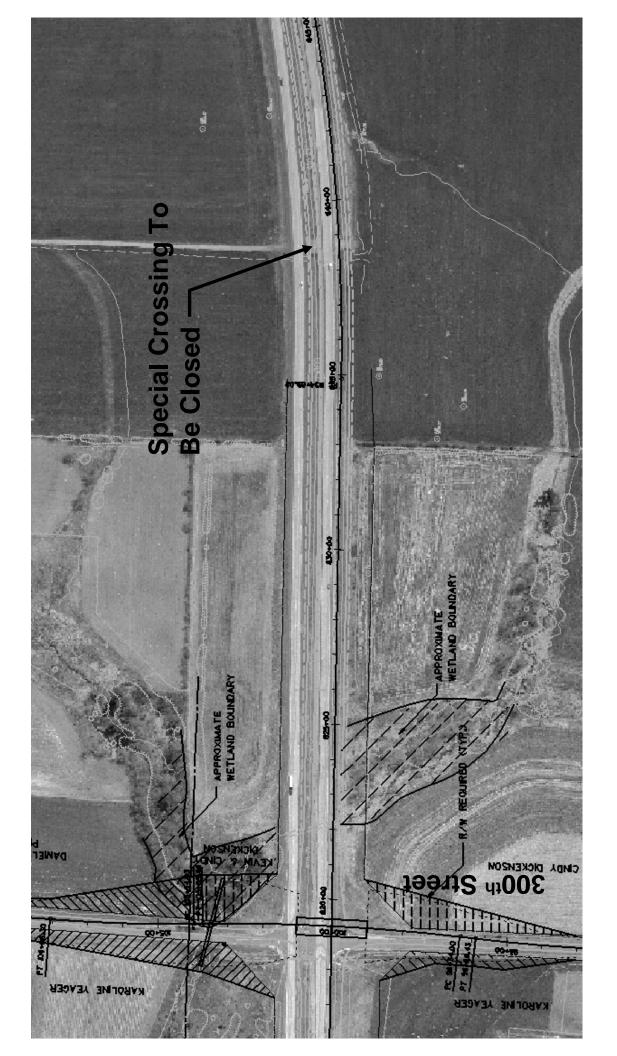
Avenue will require full relocation of buildings. Remnant will remain.

For the grade separated structure at Koser Avenue associated with the freeway conversion, a farm parcel in the NE will require an access relocation as well as replacement costs for a new manure pit.

6.	Describe effects caused by the elimination or relocation of a cattle/equipment pass or crossing. Attach plans, sketches, or other graphics as needed to clearly illustrate existing and proposed location of any cattle/equipment pass or crossing.
	☐ Does Not Apply
	Replacement of an existing cattle/equipment pass or crossing is not planned. Explain. One agricultural special crossing east of 300th Street will be removed. It is like that when this proposal is implemented, these land parcels will have separate ownership. If one owner retains both parcels, the special crossing will be purchased from the owner.
	☐ Cattle/equipment pass or crossing will be replaced.
	Replacement will occur at same location.
	Cattle/equipment pass or crossing will be relocated. Describe.
7.	Describe the effects generated by the obliteration of the old roadway.
	□ Does Not Apply
	About 11 roadway connections will require the obliteration of roadways and the construction of cul-de-sacs. The effects associated with this construction are anticipated to be minor. Three grade-separated structures will travel over WIS 29 and will require the demolition of the existing side road. Again, the effects of this demolition should be minor.
	One grade separation will travel under WIS 29 and will require the demolition of some of WIS 29 while maintainting traffic. This demolition will be more substantial, both to the WIS 29 travelers and to adjacent properties.
8.	Identify and describe any proposed changes in the land use or secondary development that will affect farm operations and is related to the development of this project.
	☐ Does Not Apply
	Generally, the freeway designation and conversion will reduce development pressure on agricultural lands because access to WIS 29 is being removed. Two grade separated crossings, County Highway G, and Copenhaver Avenue, may be converted to interchanges by local governments. Some development pressure for commercial land uses near these two areas is likely. The City of Stanley is actively pursuing development near Copenhaver Avenue. Development pressure for all other side-road locations should diminish as these side road's access to WIS 29 is removed.
9.	Describe any other project-related effects identified by a farm operator or owner which may be adverse, beneficial or controversial.
	No effects indicated by farm operator or owner.
	See discussions continued within public meeting minutes.
10.	Indicate whether minority population or low-income population farm owners, operators, or workers will be affected by the proposal. (Include migrant workers if appropriate.)
	☐ No effects will accrue to farm owners, operators or workers from minority populations or low-income populations
	Yes – Discuss. Several Amish and Mennonites in the area rely on horse-drawn vehicles as their main mode of transportation. It does not appear that any right-of-way will be required from farms owned by the Amish or Mennonite communities. Some of the Amish and Mennonites may have slightly farther to travel to cross WIS 29 with the implementation of the cul-de-sacs. The grade-separated crossings were placed in locations that seek to miminize added travel to members of these communities.

11. Describe measures to minimize adverse effects or enhance benefits.

Right-of-way Acquisition and Relocations will follow Chapter 35 of the Wisconsin State Statutes as well as the Unifrom Relocation Act of 1972. These laws protect the landowners and ensure them fair market value for their property as well as appropriate relocation payments when needed.



DT2062 2003

Alternative WIS 29 Freeway Designation and Conversion, Incremental Implementation	Length of Center line and termini this sheet is evaluating if different from Sheet 1. 21.84 mi.
Preferred	
Yes	

1. Identify the alternative discussed on this sheet if it is different from the proposed action addressed in item 1 of Basic Sheet 1 or is different from the "Preferred Alternative" identified in item 3 of Basic Sheet 2.

This and other sections address 11 cul de sacs, 4 grade separation structures (2 of which could be converted to interchanges on local initiative) to be placed on the existing alignment of WIS 29 between Cadott to Thorp.

2. Identify and briefly describe the visual character of the landscape. Include elements in the viewshed such as landforms, waterbodies, vegetation and human developments.

A rural agricultural landscape character is evident throughout the project. Rolling topographic and minor community development occurs near Cadott, Boyd, and Stanley. Some housing also contributes to a transitional landscape in area between cross roads. Business parks and some other public infrastruture (WWTP lagoons)exists directly north of WIS 29 in areas.

3. Indicate the visual quality of the viewshed and identify landscape elements which would be visually sensitive.

Some rolling hills and farmsteads on the rolling topography of the alignment create important "owner views". The variation in topography is also pleasing to the traveling public. Most visual areas emphasize the agricultural nature of the area. Some dense woods intersect the R/W and suggest a northwoods/rural wildlife habitat feel.

4. Identify the viewers who will have a view of the improved transportation facility and those with a view from the improved transportation facility. Indicate the relative numbers (low, medium, high) of each group.

The greatest number of viewers on the WIS 29 roadway are longer distance regional travelers. Most of the viewshed for local traffic will originate from sideroads and overpasses. Local residences and business have and will continue to have a moderate to high amount of views and viewers. A very limited number of parcels are located at the proposed cross-road grade separations. About 10-15 parcels/buildings will have their viewshed affected by the proposed improvements.

Indicate the relative time of day (morning, afternoon, evening, night) and the approximate amount of viewing time each viewer group would have each day.

The traveling public views the roadway alterations at all times and seasons. Commuters to Eau Claire and other areas would view the improvements during the morning and evening peak hours. Residents near the grade separations will have their view altered at all times.

6. Describe whether and how the project would affect the visual character of the landscape.

Alteration to this portion of the WIS 29 corridor will not substantially change the visual nature or character of the landscape. The towns and cities near WIS 29 have developed in concert with 1960's and 1990's improvements to WIS 29. Installing two interchanges and two grade separation structures will not change the character or feel of the WIS 29 landscape substantially.

7. Indicate the effects the project would have on the viewer groups.

As described above, the project will mildly affect the local viewer groups. When these grade separation structures and possible locally initiated interchanges are implemented, WisDOT will coordinate with local entities to discuss aesthetic treatments that could be incorporated into the structure design.

The 300th Street, Copenhaver Avenue, and Koser Avenue grade separated structures will have a greater affect on the local viewshed of adjacent properties since these three involve substantial embankments as the cross road travels

4.	Indicate whether a farm operation will be severed because of the project and describe the severance (include area of original farm and the size of any remnant parcels).
	☐ Does Not Apply
	Details are presented in the conceptual stage relocation plan. No farms will be directly severed. The Sorenson farm, which exists on boths sides of Koser Avenue north of WIS 29, will have its access altered. The embankment associated with Koser Avenue's grade separation will raise the profile of Koser Avenue and require the realignment of driveways.
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	For the locally initiated Copenhaver Avenue interchange, a farm parcel or SE quadrant of WIS 29/Copenhaver Avenue will require full relocation of buildings. Remnant will remain.

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	traffic. This demolition will be more substantial, both to the WIS 29 travelers and to adjacent properties.
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10.	Indicate whether minority population or low-income population farm owners, operators, or workers will be affected by the proposal. (Include migrant workers if appropriate.)
	☐ No effects will accrue to farm owners, operators or workers from minority populations or low-income populations
	Yes – Discuss. Several Amish and Mennonites in the area rely on horse-drawn vehicles as their main mode of transportation. It does not appear that any right-of-way will be required from farms owned by the Amish or Mennonite communities. Some of the Amish and Mennonites may have slightly farther to travel to cross WIS 29 with the implementation of the cul-de-sacs. The grade-separated crossings were placed in locations that seek to miminize added travel to members of these communities.

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